

## CLAIMS

While the present invention has been described with respect to a limited number of embodiments, those skilled in the art will appreciate numerous modifications and variations therefrom. It is intended that the appended claims cover all such modifications and variations as fall within the true spirit and scope of this present invention.

What is claimed is:

12. A marine vehicle having a hull provided with a bow, a wave shock absorbing system incorporating structural means for absorbing wave shock comprising a plurality of forwardly mounted sections of predetermined width and length and arranged in spaced relationship to each other providing channels between the structural members on the bow to retard wave progression towards the hull by diffusing waves.

13. The marine vehicle of claim 1 where the channels are adapted to channel air and reduce suction on the diffuser and under the hull.

14. The marine vehicle of claim 1 where the channels have a long elongated configuration that extends under the hull.

15. The marine vehicle of claim 1 wherein the hull has a rectangular shape.

16. The marine vehicle of claim 1 where the forwardly mounted sections are adapted to channel coolant fluids through the sections to cause heat exchange between the said coolant and air-cooled or wetted surfaces of the mounted sections.

17. The vehicle of claim 1 wherein the hull has a non-curved surface.

18. The vehicle of claim 1 where the channels are adapted to divide water and mix with air to form compressible fluid to absorb shock imparted on the bow while the marine vehicle is moving through the waters.

19. The vehicle of claim 1 where the said forwardly mounted sections are positioned in the diffuser assembly to provide a cavity between the sections and the hull to further mix air with the wave and equalize pressures caused by uneven wave impact.

20. The vehicle of claim 1 where the said wave shock absorbing system is mounted remotely in front of a bow of any shape to reduce wave impact on the said bow

21. The vehicle of claim 1 where the said wave shock absorbing system has a cap on top of the said forwardly mounted section to provide for the upward containment of the wave and wave gas mixture to protect the said vehicle from water and spray and force the gas and liquid mixture downward under the said hull.

22. The vehicle of claim 1 where the said forwardly mounted sections are terminated at the waterline or above to prevent diffuser operation where no waves are present.

23. The vehicle of claim 1 where the forwardly mounted sections are adapted to rotate to provide repetitious contact with the wave to hasten diffusing the wave and mixing of air with the wave to retard wave shock.

24. A marine vehicle of claim 1 adapted to provide adjustable forwardly mounted sections incorporating sensing means for anticipating wave impact and urging means for moving the said adjustable forwardly mounted sections to provide optimal wave diffusion and air and water mixing to retard shock.

25. The vehicle of claim 1 where the wave diffuser structure being through necessity a high strength structure is adapted to house the craft's propulsion structure.

26. The vehicle of claim 1 where the wave diffuser structure being through necessity a high strength structure is adapted to house the land wheels and drive system of an amphibious vehicle.

27. A wave shock absorbing system incorporating structural means for absorbing wave shock comprising a plurality of forwardly mounting sections of predetermined width and length and arranged in spaced relationship to each other providing channels between the structural members to retard wave progression adapted to attach to fixed seawalls, bulkhead, breakwater structures or the like to reduce impact shock on the said fixed seawall, bulkheads, breakwater structure, or the like.